

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application.

Please add new claims 25-29.

Please amend claim 1 as indicated below (material to be inserted is in **bold and underline**, material to be deleted is in ~~strikeout~~ or (if the deletion is of five or fewer consecutive characters or would be difficult to see) in double brackets **[ [ ] ]**):

**Listing of Claims:**

1. (Currently Amended) A method of controlling a dissolution rate of a bioactive agent, the method comprising:

**identifying a target dissolution rate;**

selecting a desired dot topography corresponding to **[ [a]] the** target dissolution rate; **and**

applying a bioactive agent to a delivery substrate to form dots having the desired dot topography on the delivery substrate.

2. (Original) The method of claim 1, wherein a dot topography of each of the dots is characterized by a standard deviation of topographical surface area that is less than approximately 15% of a mean topographical surface area.

3. (Original) The method of claim 1, wherein applying the bioactive agent to the delivery substrate includes heating a solution carrying the bioactive agent with a thermal ejection element.

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4. (Original) The method of claim 1, wherein applying the bioactive agent to the delivery substrate includes displacing a solution carrying the bioactive agent with a piezoelectric ejection element.

5. (Original) The method of claim 1, wherein applying the bioactive agent to the delivery substrate includes ejecting drops of solvent carrying the bioactive agent in a concentration based on the desired dot topography.

6. (Original) The method of claim 1, wherein applying the bioactive agent to the delivery substrate includes ejecting drops of solvent carrying the bioactive agent, wherein the drops have a drop volume based on the desired dot topography.

7. (Original) The method of claim 1, wherein applying the bioactive agent to the delivery substrate includes ejecting drops of solvent carrying the bioactive agent onto the delivery substrate and drying the solvent based on the desired dot topography.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

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18. (Cancelled)

19. (Cancelled)

20. (Cancelled)

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (Cancelled)

25. (New) The method of claim 1, wherein selecting the desired dot topography includes selecting a relatively irregular topography where the identified target dissolution rate is a relatively faster dissolution rate, and selecting a relatively smooth topography where the identified target dissolution rate is a relatively slower dissolution rate.

26. (New) A method of controlling dissolution rate of a bioactive agent, the method comprising:

identifying a target dissolution rate;

selecting a dot topography based on the target dissolution rate; and

applying a bioactive agent to a delivery substrate to form dots having the selected dot topography, thereby achieving the identified target dissolution rate.

27. (New) The method of claim 26, wherein selecting the dot topography includes selecting a crystal morphology corresponding to the target dissolution rate.

28. (New) The method of claim 27, wherein applying the bioactive agent includes adjusting one or more application parameters from a group of application parameters consisting of solvent formulation, drop size, removal rates and crystal templates, to achieve the selected crystal morphology.

29. (New) A method of controlling dissolution rate of a bioactive agent, the method comprising:

identifying a target dissolution rate;

selecting a desired dot topography from a plurality of possible dot topographies, the desired dot topography being selected to produce dots with topographical surface area corresponding to the target dissolution rate; and

applying a bioactive agent to a delivery substrate based on application parameters configured to form dots having the desired dot topography.